



BADGER STATE *Smoke Signals*



Serving Amateur Radio in Wisconsin

Published Monthly Since 1969

Vol. 16 No. 10 - 190th Consecutive Monthly Issue - Baraboo WI - October 1982

Special 3-D Issue!

In this special issue, we present 3 three dimensional pictures.

All the photos were taken in June, at the Field Day operating site of the Yellow Thunder Amateur Radio Club - Owen Park, in Columbia County.

This shot is looking north from the site.

All the pictures were chosen as being best representative of the 3-D effect.

This special project would not have been possible without those who helped sponsor the pages; you'll find them listed in this issue.

The red and blue glasses were donated by WHA-TV and the Friends of Channel 21. The halftone negatives came from N9BOE.

And.. a lot of patience came from the other 67% of the BSSS staff.. Jim Decker, WB9UQT, and Ken Ebner, K9EN.

We all hope you enjoy this special issue!



-k9zz photos-

Badger State Smoke Signals supports: The American Radio Relay League (ARRL) - The Wisconsin Nets Association (WNA) - The Wisconsin Association of Repeaters (WAR) - The Amateur Radio News Service (ARNS) - The Courage Handi-Ham System - The Morse Telegraph Club - GEARVAKf (The 'f' is silent)

Badger State Smoke Signals

Officers:

Ken Ebnetter, K9EN, Chairman
 Jim Romelfanger, K9ZZ, Editor
 Jim Decker, WB9UQT, Treasurer

Send editorial material and
 exchange papers to:

Jim Romelfanger, K9ZZ, Editor
 301 1/2 7th St.
 Baraboo, Wisconsin 53913

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Badger State Smoke Signals
 Jim Decker, WB9UQT, Treasurer
 P.O. Box 337
 Baraboo, Wisconsin 53913-0337

Send address corrections and
 changes to:

Kenneth A. Ebnetter, K9EN
 822 Wauona Trail
 Portage, Wisconsin 53901

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 print items from BSSS provid-
 ing credit is given to the
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 Signals.

SWAPFESTS AND OTHER SOCIAL EVENTS

October 5, 1985 Wisconsin Chapter QCWA
 - Fall dinner meeting. (See meeting
 notice section for details.)

1985 ARRL NATIONAL CONVENTION --
October 4, 5, & 6. -- Louisville,
Kentucky. See August issue of QST for
 full details.

October 6, 1985: West Liberty, IA
Hamfest, Fairgrounds

KMRA ANNUAL HAM, COMPUTER, AND VIDEO
FEST Sunday, October 13, 1985 At the
 Waukesha Exposition Center, Waukesha,
 WI. SASE to KMRA, P.O. Box 411,
 Waukesha, WI 53187

LATE FALL HAMFEST: November 3, 1985 at
 the Lake County Fairgrounds, Grayslake,
 IL. SASE to CAP, 637 Emerald St.,
 Mundelein, IL 60060.

The Milwaukee Repeater Club is proud to
 sponsor the "6.91 Friendly Fest" on
 Sunday, November 24, 1985, at Serb
 Hall, 51st and Oklahoma, Milwaukee, WI.
 Gather up your swapfest bargains and
 partake of that famous Milwaukee food,
 beverages (including beer) and bowling
 (12 lanes). Tickets are just \$3 at the

door, four foot tables for \$4. Save \$1
 per ticket or table - send SASE with
 payment to The Milwaukee Repeater Club,
 P.O. Box 2123, Milwaukee, WI 53201
 before November 11th. Talk-in on
 146.31/91 ("The Friendly One") and
 146.52, advance info available from the
 above address.

The date for the West Allis Radio
Amateur Club's 1986 Midwinter Swapfest
 will be Saturday, January 11 at the 4-H
 forum, Waukesha County Expo Grounds.

1986 Wheaton Hamfest information:

February 2, 1986
 Odeum Expo Center
 Villa Park, Illinois

Size of the facility is comparable to
 the Arlington Race Track. This infor-
 mation is from Mac, N9DUW, President,
 Wheaton Club.

February 23, 1985: Davenport ARC
Hamfest, Davenport, IA.

The 1986 South Milwaukee Swapfest will
 be held on July 12, 1986. (We hope
 this early information will help avoid
 having 3 section swapfests on the same
 day next year.)

As a service to our readers, this
 section of Badger State Smoke Signals
 is available without charge to list
 your upcoming Swapfest, Hamfest, din-
 ner, picnic, party or other event of
 interest to Radio Amateurs in Wisconsin
 and nearby areas. Send information on
 your event to Kenneth A. Ebnetter, K9EN,
 822 Wauona Trail, Portage, WI 53901.
 In addition, space is available at
 attractive rates on our advertising
 pages, and/or we can include your
 flyers. For information on rates and
 requirements for our advertising pages,
 and/or for including flyers, please
 contact K9ZZ or K9EN.

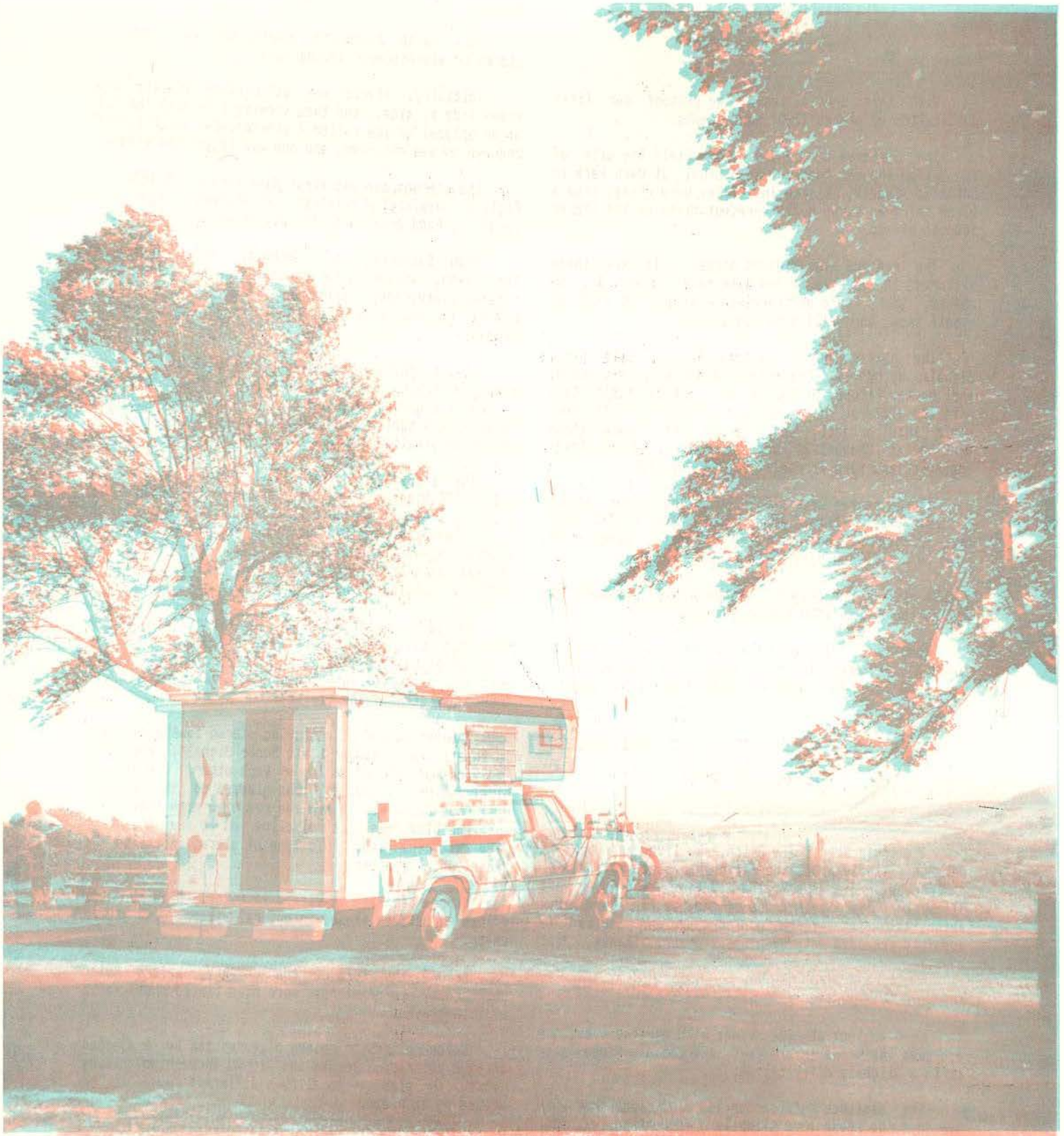
TAX RETURNS "LOST"

(From GEARVAKf Bulletin, Spring, 1985)

Maximillian Pheeny, Director of
 Internal Revenue, denied at a news
 conference last Monday that there has
 been a mass shredding of tax returns in
 various IRS processing centers this
 spring.

Said Pheeny, "Nobody is doing
 anything we haven't approved. We just
 have a test program for salvaging and
 recycling used paper in order to reduce
 the IRS budget."

He had no explanation for the
 disappearance of approximately 20 mil-
 lion individual tax returns last week.
 "It must be a computer error," he said.



This view is looking south from the Yellow Thunder Amateur Radio Club Field Day site, Owen Park in Columbia County. It's a super VHF location.. on clear nights, the towers in Madison, 35 miles away, can be easily seen. k9zz photo.

THREE DIMENSION'S FIRST APPEARANCE IN BADGER STATE

Jim Romelfanger, K9ZZ, Editor
301 1/2 7th Street
Baraboo WI 53913-2234

With this special issue, we present our first publication of stereo (3-D) photographs.

The pictures were taken at the Field Day site of the Yellow Thunder Amateur Radio Club, at Owen Park in Columbia County, Wisconsin. They were chosen from a large batch as being best representatives of the stereo (depth) effect.

The red and blue glasses necessary to see these pictures in 3-D were mailed with this issue. If, by chance, yours were not received, please let K9EN or myself know, and we'll send you a pair.

The glasses were given to Badger State Smoke Signals by WHA-TV, Channel 21 in Madison, Wisconsin, and by the Friends of Channel 21. Without their help with the glasses, we would have not been able to complete this project, and we thank them. Among those working at Channel 21 are Ken Dixon, W9XM, Chief Engineer, and Herb Jordan, W9LA, an engineer.

The pictures were halftoned by one of our unsung heroes, Bill Bastian, N9BOE, Tomah, and the 3-D pages were printed by our long-time friends at Giegerich's Sons in Prairie du Sac, Wisconsin.

Thanks also to Ron Brayer, Westwood Park, Baraboo, for making the 8 x 10 inch prints we used.

Keep your glasses after you're done looking at these 3-D pictures. You never know... We just might run some more later on. Hope you enjoy these pix, gang! - k9zz.

PICTURES WITH DEPTH

(Editor's Note: Jim Brice, who lives and works in Baraboo, kindly wrote the following about stereo (3-D) photography. Jim is a fellow 3-D fan, as I have been since the 3-D movie craze of the early 1950s. His enthusiasm for stereo photography and movies is possibly exceeded only by mine.. maybe. Thanks, Jim! k9zz.)

When we look at real scenes with our two eyes, one eye sees the scene in one way, and the other eye sees it in a slightly different way.

The distance between our two eyes means that each eye sees the scene from slightly different angles. Our brain combines these two views into one view with depth (the third dimension, the other two being height and width.)

Three dimensional photography is achieved by taking two pictures of the same scene simultaneously from slightly different angles, then using a device or

system to allow one eye to see only one picture, and the other eye to see only the other picture. Our brain then puts the two pictures together, and we see one in which we see contours and depth.

This three dimensional photography is known as stereo or stereoscopic photography.

Initially, stereo was achieved by placing the views side by side, and then viewing them with the aid of an optical device called a stereoscope, which forced one eye to see one view, and one eye to see the other.

The stereoscope was first demonstrated in 1838 by English physicist Wheatstone. Wheatstone's views were carefully hand drawn with the aid of an optical device.

When Daguerre, a Frenchman, and Talbot, an Englishman, announced to the world the first two successful photographic processes in 1839, it wasn't long before various people started making stereo photographs.

Stereo photographs can be taken with an ordinary camera by taking one view, then moving the camera and taking the second view. However, they are most often taken with a camera that has two lenses, and takes the two views simultaneously.

The stereo (3-D) views in this issue were taken with a TDC Stereo Colorist II camera, using Kodak Plus-X film. This is a camera from the early 1950s, which uses 35mm film. It has two 1:3.5 f=35mm lenses with shutter speeds from 10 to 200, and f stops 3.5 to 16. It was manufactured by the Three Dimension Company (TDC), a division of Bell and Howell.

By 1860, making and selling stereo views was a very big business. People were very anxious to buy views of places they had never been, because they could not see pictures in magazines or newspapers until around the turn of the century.

Another method of achieving stereo is the one used in this issue of Badger State Smoke Signals, where the two views are placed on top of each other. One view is blue, and one is red. With the glasses on, the red lens will not allow you to see the red view with that eye, and the blue lens will not allow you to see the blue view with that eye. This type of stereo is called the "Anaglyphic" process.

Stereo can also be viewed in color. Side by side prints or slides viewed in optical viewers give stereo color.

Around the turn of the century, before color photography, color stereos were hand tinted photographs or lithographs.

Color slides or motion pictures can be projected through polarizing lenses and viewed through polarizing lenses in glasses to allow a different image to be viewed by each eye.

POTPOURRI (from HANTRIX)

Were you licensed 25 or more years ago? Why not join the Quarter Century Wireless Association? If interested, contact Les Peterson, W9YCV for further information.



Here's Jim Decker, WB9UQT, operating Packet Radio at the Yellow Thunder ARC Field Day site. Jim is also Treasurer of Badger State Smoke Signals, YTARC, and others. A hard worker, this guy! k9zz photo.

CLUB MEETINGS:Central Wisconsin Radio Amateurs, Ltd.
(Stevens Point)

Regular club meetings are held on the second Wednesday of the month.

Four Lakes A.R.C. (Madison WI)

RED CROSS BUILDING, 4860 Sheboygan Ave., Madison, WI., first and third Tuesdays each month.

Kettle Moraine Radio Amateurs:

All meetings are held on the SECOND (2nd) Friday of each month.

Manitowoc County Radio Amateurs

MANCOCRAD meets on the third Wednesday of the month at 7:30 p.m. at Manitowoc Red Cross at 20th and Washington Streets in Manitowoc WI.

Milwaukee Radio Amateurs Club:

All regular meetings of MRAC scheduled for 1985 at Wauwatosa Savings and Loan Building, 7500 West State Street, will be held on the second Thursday of the month.

1985 meetings will be: Oct. 10 (Mr. Ed Wille of Ken-Com Engineering, inc., will speak on audio and acoustic measurements.), and Nov. 14.

Ozaukee Radio Club

Meetings held every second Wednesday at 7:30 p.m. in the Saukville Community Center

Quarter Century Wireless Assn., Inc.

Fall dinner meeting: Saturday October 5, 1985 at the Stone Pub, 323 South Blvd., Baraboo, WI. 11:00 a.m. registration with dinner at 12:00 noon.

Invite and/or bring prospective members, interested friends and wives of our Silent Keys. Cost: \$8.50 per person including dinner, tax, tip, beer and soda. Make reservations no later than Sept. 27, 1985 to: Richard R. Regent, K9GDF, Treas., 5003 S. 26th St., Milwaukee, WI 53221 (414) 282-0312.

Riverland Amateur Radio Club

Regular meetings are held at 7:30 P.M., on the first Wednesday of each month in the Onalaska Community Center in Onalaska, WI.

Sheboygan County Amateur Radio Club

October 8, 1985: Regular meeting.

South Milwaukee Amateur Radio Club

Meetings held at Legion Post 434, Shepard Ave., Oak Creek, on first Wednesday of the month. Auctions held at March and October meetings.

West Allis Radio Amateurs Club

Regular meetings are held on the second Tuesday of each month at St. Francis Savings, 9330 W. Greenfield Ave., at 8:00 P.M.

The Wisconsin Valley Radio Association (Wausau)

Holds regular monthly meetings on the first Tuesday of the month at 7:30 p.m. The location varies, but information is available on the 146.04/64 repeater in Wausau.

Yellow Thunder Amateur Radio Club (Baraboo, WI)

All regular meetings of YTARC are held in room 30 of the Baraboo Civic Center. (Except for Monday meetings, which will be in room 25.) Meetings start at 7:30 P.M.

The meeting dates for 1985 are: Oct. 15, Nov. 13, & Dec. 12.

Let us know of your club meeting dates, and we will let others know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.

MISCELLANEOUS MISCELLANEOUS MISCELLANEOUS
Oh what the heck -- items of interest:

Four Lakes Amateur Radio ClubTHE FEEDLINE

Art, NF9S (ex KC9XF) and Bernie, NE9EJL are now the proud owners of a brand new TELREX TB6EM triband beam. N9BAF, NB9C, N9ADN, and NA9M were on hand to help hoist and place the 85-pound antenna on the tower.

N9BAF is now sporting a trap dipole for 40 and 80 meters thanks to NF9S and N9ADN for their help. Murphy was there for awhile, but an insufficient ground proved to be easily fixable.

Milwaukee Radio Amateurs ClubHAMATEUR CHATTER

GOOD NEWS for our club members and friends - in spite of the closing of the Pabst Brewery Hospitality Rooms, we will have our annual Christmas and Old Timers Party on Thursday evening, December 5, 1985. Party will be held at Elm Grove American Legion Post Hall.

Ozaukee Radio ClubORC NEWSLETTER

Fall is rapidly approaching and it's time to check antennas and feedlines, making sure everything is ready for the cold WX. If you are climbing towers, scrambling up on your roof, etc., please be careful! Use safety procedures, safety belts, and think where you put your hands and feet before you actually do it. A moment's carelessness can be dangerous. --Stan Kaplan WB9RGR

Sheboygan County Amateur Radio Club,NEWSLETTER

Rick, KA9RND, has received his upgrade to Advanced and is spreading the news. CONGRATULATIONS!!

The Ozaukee Radio Club has invited us to a fall meeting. Greg, KV9V is trying coordinate with their Nov. 11th meeting. This will be in Saukville, and they have promised to put on a nice presentation.

Taylor County Area Amateur Radio ClubTaylor County ARES

The following are Hams known to be active in Packet Radio at this time, or who have the equipment for it: N9CLE, Wally, Tomahawk; N9BIR, Jim, Marshfield; W9IHW, Gus, Port Edwards; and W9ZBD, Bill, Rhinelander.

Tri-County Amateur Radio Club

Tri-County member formerly known as Stan Lichtenberg, is now known as N9FIB. He has recently received his Technician license. CONGRATULATIONS!!

The Wisconsin Association of Repeaters

Activity has been slow on the coordination front this summer, W9EDF has waited for over a year for a Milwaukee area frequency on 2 meters. He now is taking over 147.93/33 from Marlin, N9EDL. WA9BZW is up and running in Shawano, 144.75/145.35, Burlington 146.745/145 is inverting its pair and Baldwin is going ahead on 145.13.

West Allis Radio Amateurs Club

HAMTRIX

W9YCV worked 4 new grid squares during the June 8 & 9 VHF contest. 3 confirming QSLs (W0FY in EN48, W9IP/2 in FN24 and W1VD in FN31) have been received. Confirmed grid squares towards VUCC on 2 meters is now 61 and confirmed states is 19.

HAM HINTS: Suggest using "O" rings as replacements for the gaskets in N-connectors. I've found that those in the size 7/16" Id, 5/8" OD x 3/32" wall work nicely in either the male N-connector for RG-8/u or bulkhead (chassis mount) N-female connector. --Les Peterson, W9YCV.

Our thanks to the above mentioned clubs and their bulletins for the information presented. Badger State Smoke Signals will be pleased to exchange bulletins and information with your club. Please contact K9ZZ or K9EN.

THE TEST POINT

The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

October 13, 1985	Waukesha, WI
October 19, 1985	Milwaukee, WI
October 19, 1985	Minneapolis, MN
November 2, 1985	Stevens Point, WI
November 2, 1985	Duluth, MN
November 9, 1985	Milwaukee, WI
December 7, 1985	Wausau, WI
December 11, 1985	Milwaukee, WI
December 14, 1985	Milwaukee, WI
February 1, 1986	Duluth, MN

General rules for all examinations:

All examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs may permit walkins. Check with sponsor to find out if they allow walkins.)

To register for these examinations, you must first secure a copy of the current FCC Form 610 (the one dated June 1984) and fill it out completely (AND CORRECTLY). Get your form from the FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 22c SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group. Remember-- you must file at least 30 days in advance unless otherwise indicated.

ARRL/VEC examinations require a check for \$4.00 payable to ARRL/VEC.

Additional information is given below.

October 19, 1985 Minneapolis, MN

Contact: Minneapolis Radio Club
Tony Becker, AEOM
3638 Pleasant Ave., S.
Minneapolis, MN 55409

Oct. 19, 1985 Milwaukee, WI (9:00am)
Dec. 11, 1985 Milwaukee, WI (7:00pm)
Dec. 14, 1985 Milwaukee, WI (9:00am)

MILWAUKEE METRO AREA TEST TEAM.

(MRAC - VEC) In room 256 at the Wauwatosa East High School, 74th and Milwaukee Ave. Use the East (74th Street) entrance.

File on a Postal System post card (14¢) mailed to:

The Milwaukee Radio Amateurs' Club, Inc
NSO W16328 Pin Oak Court
Menomonee Falls, WI 53012

PLEASE PRINT listing the grade of license you are applying for, your name, address, including Zip Code and your telephone number.

MRAC -- Your Wisconsin based VEC for Region 9.

THE MILWAUKEE VOLUNTEER CORE GROUP

(DeVry VEC) will be giving Amateur Radio exams in the Service Occupation Building, rooms S0208 and S0209 at the Waukesha County Technical Institute. The exams will begin at 9:00 a.m. Walkins are welcome. We will have exams for the visually impaired available in Novice thru Extra.

October 13 (KMRA Swapfest, Waukesha)
November 9
December 14

If you are interested, please send a POST CARD with your NAME, ADDRESS, TELEPHONE NUMBER, and the DATE on which you wish to be tested, and the GRADE of license you wish to be examined for to:

Syl Janczak WD9JKZ
3127A West Madison
Milwaukee WI 53215

Exams for shutins are given by appointment only.

November 2, 1985 Stevens Point, WI

ARRL/VEC -- Central Wisconsin Radio Amateurs, Ltd.

Contact: Joe Larson, N9JW
644 Portage St.
Stevens Point, WI 54481

(Examination site: Blue Top Motel, Stevens Point.)

November 2, 1985
February 1, 1986

Arrowhead RAC, Duluth MN

Contact: Eddy Lonnstrom
2026 Baxter Ave.
Superior, WI 54880

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules.

Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN or K9ZZ at the address shown on page 2.

1985 ILLINOIS QSO PARTY

This years contest - sponsored by the Radio Amateur Megacycle Society - has a new date, a new seven-hour length and the addition of club/team competition. Also, Illinois stations may now work each other from county credit.

DATE/TIME - Sunday October 6, 1800 utc, until Monday October 7, 0100 utc.

SUGGESTED FREQ'S - 3550, 7050, 14050, for CW. 3890, 7290, 14290 for SSB. Other bands may also be used.

EXCHANGE - Illinois stations, RST and county. Others RST and state, province or country.

SCORING: Count 1 pt. per phone QSO, 2 pts. per CW QSO. No repeater QSOs. Stations may be worked once per band and mode, and once per band/mode/county for IL mobile stations. Illinois stations multiply points by sum of states, IL counties, VE provinces, and a maximum of five DX countries. Count additional DX for points, but not multipliers. All others multiply points by number of IL counties worked.

Illinois mobiles may add 200 pts. to final score for each county from which 10 or more QSOs were made. All stations may earn one extra multiplier for every eight QSOs made with the same Illinois county.

AWARDS: Stations will qualify for certificates in the following categories:

- A: 10 highest scores, Illinois fixed station.
- B: 5 highest scores, Illinois mobile station.
- C: Highest score in each state, province and country.
- D: Highest club/team aggregate score.

LOGS: Entrants shall submit a log containing GMT, call, RST, state or province, IL county, band and mode.

Circle new multipliers as worked. IL mobiles must indicate county changes in log. Any station with over 100 QSOs must submit a dupe sheet. All stations must submit a summary sheet.

Entries must be postmarked by 01 November 1985. Mail to RAMS. c/o Joe LeKostaj, WB980J, 9134 Ewing Ave., Evanston, IL 60203.

From NARC LOUD MOUTH and WORLD RADIO

FLASH!
HAMS IN SPACE AGAIN IN OCTOBER!

(From the ARRL Letter, September 12, 1985)

In October, the Federal Republic of Germany will have the first scientific manned space mission of her own: the D1 mission.

German science Astronauts Dr. Ernst Messerschmid, DG2KM, and Dr. Reinhard Furrer, DD6CF, will carry out experiments on board the Spacelab, carried into orbit by NASA's Space Shuttle "Columbia."

They'll also operate an Amateur Radio station aboard Columbia - DP0SL.

During this Spacelab mission, scheduled to last seven days, startup of Amateur Radio activity is planned for mission day 3, continuing until about 12 hours before touchdown -- this means a stretch of as many as five days during which DG2KM and DD6CF may activate DP0SL during their free time.

As a rough estimation, six shuttle passes, each offering a maximum of 12 minutes of possible contact time, may be expected per day.

DP0SL's Ham-in-space activity will be focused on Europe, but Astronauts Messerschmid and Furrer intend to attempt contacts with other parts of the world, as far as mission parameters and spacecraft flight attitude (among other factors) may permit.

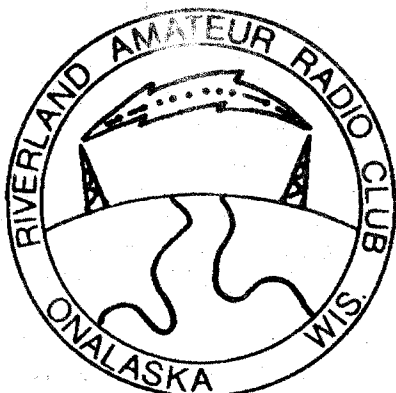
During DP0SL's operating stint in the sky, calls of responding ground stations will be recorded on tape for post-mission evaluation - to be confirmed by the Deutscher Amateur Radio Club (DARC) with special QSL cards.

When DD6CF and DG2KM are unable to undertake voice communications via DP0SL, their rig may be operated as a recording beacon: an automatic CQ would be transmitted, followed by a one minute listening period during which responses would be recorded on tape, with this cycle automatically repeated.

Call signs identified on this tape will also be confirmed by DARC. The DP0SL transceiver may also be operated as a normal beacon: continuous transmission with call sign inserted, but without receiving periods. This mode may be used for VHF propagation measurements.

THE RIG ITSELF

The DP0SL transceiver is a special development, designed and constructed by BOSCH/Germany, according to the D1 Mission specifications, using components from
(continued on page 11)



On September 4, 1985, at 7:42 p.m., the regular monthly meeting of the Riverland Amateur Radio Club was called to order by President Craig Goldbeck. Minutes of the August meeting were approved as read from the Badger State Smoke Signals. The treasurer's report was approved.

RTTY Repeater Report: Duane reported that some changes were made to the RTTY repeater so it can handle any speed up to 110 Baud.

37/97 Report: The TV station borrowed the power supply from the repeater because of an emergency at the station, this resulted in a weak signal when switched to the battery back up. The power supply will be re-installed as soon as possible.

Old Business: The next scheduled exam session is tentatively scheduled for the middle of December. Anyone with a preference as to what night they would like see the exam scheduled, let Rick, KV9U, know as soon as possible.

A motion was made that we pay the amount requested for liability insurance to the insurance company by the September 15 due date. The motion was passed and the premium will be paid.

New Business: Rick has offered to teach a class for new Amateurs or to upgrade to Technician or General. If there is any interest, please contact Rick or anyone in the club so one can be scheduled.

Program scheduled was a Packet Radio demonstration by WA9SOU.

Total members present was 25.

Respectfully submitted,
Greg A. Miller
Sec. Treas. Riverland ARC

MEMBERS PRESENT

Jim Burcum
Greg Miller
Al Skwertz
Duane Fruechte

K9LBX
KA9FOZ
W9QHN
W9HWQ

Tom O'Brien
Ron Reed
Rick Williams
Hugh Barker
Art Osbourn
Craig Goldbeck
Van Elston
Bruce Bjerstedt
John Young
Dick Low
Jim Brooker
Ray Buhr
Knute Knutson
Bill Pike
Dallas Miller
L. F. Bentzen
Greg Martin
John Markos
Ken Weigel
Gary Webb
Jeff Fancher

WB9BJQ
KD9OY
KV9U
KOEJZ
W0JDC
N9ETD
WA9FIO
K9CUT
W9KAZ
K0JYB
N9DBK
AA9M
W9SFL
K9FYZ
K9LEC
K9EGO
WA9BIK
KA9LQF
N9CDT
N9DHQ
N9BRA

GUESTS PRESENT

Jerome Growkowsky
John Corstvet
George Kroner
Bob Pluntz

WA9HCZ
WA9SOU
KA9HOP
WD9FKV

-ATTENTION! ATTENTION! ATTENTION!-

We are seeking interest in starting classes for Novice, Technician or General class licenses. Anyone who would like to attend a class to upgrade or for review, contact Rick at 783-8028 or Greg at 781-4325. If there is enough interest, we will schedule a class at a convenient time.

FROM YOUR PRESIDENT

Is there anyone who has been considering becoming an Assistant Technical Coordinator? The ARRL is now offering free starter kits to ATCs which include:

- (1) The ARRL Call Directory
- (2) 1985 Amateur Handbook
- (3) RFI book
- (4) CATVI Working Materials
- (5) Field Resources Directory
- (6) Field Forum newsletters
- (7) Blue ARRL Diamond lapel pin
- (8) ATC certificate and other goodies

You don't have to be a technical genius to serve as an ATC, nor are there reams of paperwork. All that is required is a Tech or higher license and be an ARRL member.

If you think you would like to serve as an ATC and want more info, call me (Craig, N9ETD) at (608) 784-7675, or call our Section Manager, Rich Regent, at (414) 282-0312.

If you know of anyone who would like to get into Ham Radioland and wants to get into a licensing class, tell them to come to the next meeting. If we have enough interest, we will start a class for Novices.

I would like to thank John Corstvet (WA9SOU) and Van (WA9FIO) for putting together a demo on Packet Radio at our September meeting. It was a very informative presentation, complete with videotape.

73, Craig Goldbeck N9ETD
Riverland ARC

FROM YOUR EDITOR

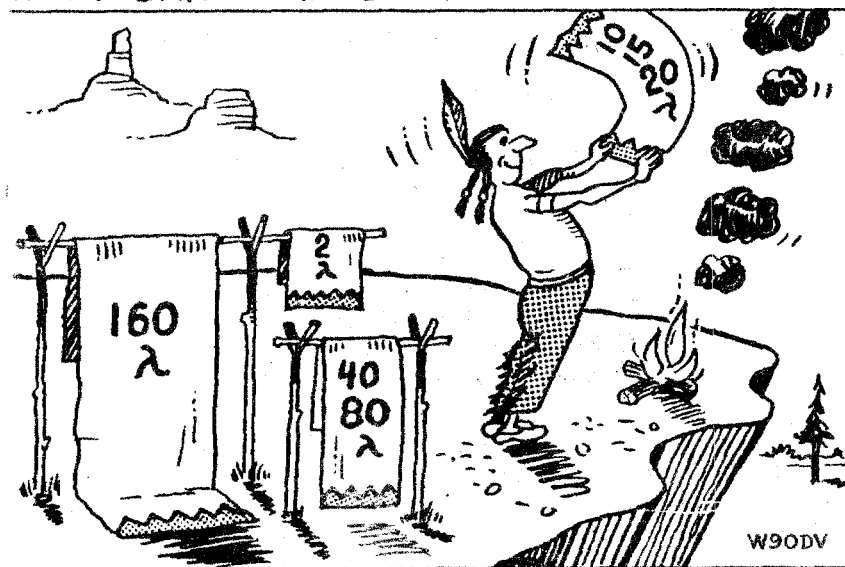
Some items from here and there.. mostly there...

Lenore Jensen, W6NAZ, is compiling a book of "Fascinating Experiences of Amateur Radio Operators".. anecdotes (200 words or less) of rescues, thrilling or amusing experiences or coincidences which would interest the general public (nothing technical nor needing a knowledge of Ham Radio). The profits will go to the ARRL Foundation.. it's a cooperative venture.

If you have a story (or more than one) fitting her criteria, please send it (them) to her at 14867 Round Valley Drive, Sherman Oaks, California 91403.

Another Wisconsin Ham working WOORE/Challenger was Kim Smrstick, Arpin. PNX Watts Snoo.

MULTI-BAND CAPABILITY



In the scrounging department, this humble publication could make very good use of a few items.. if someone might have them and be willing to donate them. They would all make putting this paper together easier. They are (1) a shaker table (2) electric stapler(s) - the ones we have are aging (3) Swingline brand standard size staples and (4) 20 lb white mimeo/offset bond paper.

Other items we would certainly find useful are stencils (AB Dick 2060, for light impact printers) and AB Dick electronic stencils. The general idea here is to save money! If we can find these items as donations, we can possibly forestall subscription rate increases, or, at least, keep them to a minimum.

If you have any of these items and would be willing to donate them, please call or write Ken Ebner, K9EN, 822 Wauona Trail, Portage WI 53901 - (608) 742-3560. Danke!

The Wisconsin Nets Association section this month has items from the SM, the SEC and the STM.. but, as of September 19, NO reports from Net Managers.

Attention - clubs sponsoring swapfests... We are starting to get our ad page ready for 1986. We'd like to see more swapfests advertised thereon.. several already are. Why not add your ad? Info on our rates is either included with each issue, or you can write or call Ken, K9EN. One benefit (besides the ad itself) is that you can have your flyers mailed with BSSS at no charge. We'd like to have all swapfest ads on one part of the page, so, if you do want an ad run, we need it as soon as possible.

The ad page benefits the advertiser, and it benefits us, too, as it helps pay for the paper.

Thanx to the following, who sponsored our 3-D pages in this issue: Darrow's Country Market, Troyer Rexall Drugs, Pierce's Super Market, Jim Brice, and Giegerich's Sons. Without them, we couldn't have published the pictures at all!

Finally, thanx to Joe, W9ODV, of the Sheboygan area, cartoonist par excellence, who drew this cartoon just for Badger State! He sent along a few others, which you'll see in forthcoming issues.

K9GDF is handy with a pencil, too! Threes, gang.. k9zz..

BOSCH's mobile transceiver program. It contains a built in microcassette recorder.

RF power output of the rig is 10 watts; this is reduced to one watt for automatic (beacon) operation. Frequency coverage is 144 to 146 MHz, using F3E (FM voice) and F2A (FM Morse) emissions.

DP0SL is equipped to receive in the band 430 to 440 MHz. Receiver sensitivity for a 12dB S+N/N ratio is 0.45 microvolts.

Selection of operating frequencies is made from ROM, programmed for 4 VHF transmitting and 6 UHF receiving frequencies on 25 KHz channel spacing.

FREQUENCIES

CHANNEL	DOWNLINK	UPLINK
0	145.450	437.125
1	145.475	437.175
2	145.550	437.225
3	145.575	437.275
4	---	437.325
5	---	437.375

Ground stations transmit on the uplink, since DP0SL listens there; ground stations listen on the downlink, since DP0SL transmits there. Uplink and downlink channels may be "mixed and matched" - for example, downlink Ch 2 (145.550 MHz) might be paired with uplink Ch 1 (437.175 MHz), the resultant pair being termed "2/1."

It's recommended that circularly polarized antennas, adjustable in azimuth and elevation, be used. Maximum tracking velocity to follow Columbia's orbit: approximately 1.5 degrees per second. At least for receiving, manual steering of the antennas is sufficient, since only low gain antennas (3dB gain) are required to receive signals from DP0SL.

An effective radiated power (EIRP) of 20 dBW is recommended for contacts with Spacelab. This means, for instance, that a 70 cm transmitter with a power output of 10 watts, combined with an antenna providing 10dB gain, would be a good choice.

HOW DP0SL MAY OPERATE

Astronauts Messerschmid and Furrer may use any of the following operating modes:

1. Ham rig OFF.
2. Beacon operation with inserted call sign, no receive.
3. Beacon operation with automatic recording of incoming calls. In this mode, the transceiver transmits a CQ is Morse (F2A): "CQ DE DP0SL RECORD ON TAPE K", followed by one minute of receiving time with automatic recording of calls. Responses to DP0SL during such operation must be made using F3E (FM voice).
4. Two-way voice QSO operating using F3E.

The normal channel pair will be 3/3 (145.575 MHz downlink, 437.275 MHz uplink). In the event of heavy pileups, the Astronauts will change their receiving frequency without notice. In such cases, terrestrial stations will have to choose one of six uplink fre-

quencies with equal likelihood of being heard - reducing the pileup density for the Astronauts by a factor of six.

OTHER DP0SL INFO

At this writing, German stations DF0VR, DF0LRK, DK0UB, and DK0EK will issue daily information on the mission using 2 and 80 meters, but no real time information service is in place outside Europe. A 20 meter service is a possibility.

Closer to home for most ARRL members, W1AW and "The ARRL Letter" will provide further details as they become available. (TNX DARC)

Elmer Miller, W9NME - Silent Key

Elmer Miller, W9NME, 81, of Minocqua, died Sunday, August 18, 1985.

He was the inventor of the first electronic scoreboard, served in the Army Air Corps, was a member of QCWA, and was a retired quality control engineer for the U.S. government.

He is survived by his wife, Opal, a son and a daughter, and three grandchildren.

Memorials in Elmer's name may be made to the American Cancer Society.

(Info from N9BDL via K9GDF)

WANT ADS

FOR SALE: SWAN 350, good conds with PS mike, VX-1, \$ tubes; \$250.00. Icom 230 with PS, mike & tone pad; \$75.00. TI-99A with B&W monitor, & Milliken Math. series; \$100.00. Lew Sheerar, K9JPS, 126 Eau Claire Blvd., Wausau, WI. 54401.

Your ad can run here...For a mere fifty cents a line, you, too, can advertise in Badger State! Send your copy and humble remittance to Keeper of the Funds, Jim Decker, WB9UQT, P.O. Box 337, Baraboo, Wisconsin 53913-0337

CABLE TV ANTENNAS HELP RECEPTION

(From GEARVAKf Bulletin, Spring, 1985)

Better pictures will result if a cable TV receiver is hooked to a special cable TV antenna, tests show.

This discovery is expected to be a boon to families whose cable TV system gives bad pictures.

The new antenna, marketed by Suspect Radio Sales Co., gets all cable channels except MTV. Parents with teenagers have deluged Suspect Radio with orders, according to company president Bruce Suspect.

WISCONSIN NETS ASSOCIATION LTD.

WISCONSIN NETS

NET	WNA	FREQ	UTC	CDT	MANAGER
BWN	YES	3984	1100Z	0600	WD9IID
BEN	YES	3985	1700Z	1200	WB9ESN
WSBN	YES	3985	2230Z	1730	WA9ZTY
WNN	YES	3723	2300Z	1800	KA9QBP
WSSN	YES	3645	2330Z	1830	N9BDL
WIN-E	YES	3662	0000Z	1900	WB9ICH
WIN-L	YES	3662	0300Z	2200	KC9CJ
NWTV	YES	34/94	2330Z	1830	W9JSF
WCMTN	YES	31/91	2330Z	1830	N9DHT
GR.BAY	NO	72/12	0145Z	2045	WB9NRK
			THU	WED	
WRN	NO	3625	2300Z	1800	K9UTQ
			RTTY Mon. Wed. Fri. UTC		
			Sun. Tue. Thu. Local time		

The 1985 WNA picnic was held at Shawano County Park on the north shore of Shawano Lake. A enjoyable time was held by those attending. Several camped overnight and from the comments, they must of had a great time. (Although we are not sure if any of their neighbors got any sleep!)

At the WNA meeting, the top 3 traffic handlers for 1984 were announced. They were KA9CPA (33,723), KC9CJ and WA9WYS.

The following were elected officers for 1986:

Chairman: Larry Guthu, WB9ICH
 Secretary: Dick Hugi, KC9CJ
 Treasurer: Mike Hamman, KA9BHL

Larry replaces John Glaeser, WB9ESN as Chairman. The others are continuing in their respective offices.

Gene Santoski, K9UTQ was appointed to continue in the post of WNA Training Officer.

It was decided to hold next years picnic at the same Shawano County Park. The 1986 WNA picnic will be held on the third Saturday in September. (September 20, 1986)

SECTION MANAGER NOTES AUGUST 1985

Richard Regent K9GDF
 Section Manager WI
 5003 South 26th Street
 Milwaukee WI 53221

Congratulations to newly appointed Assistant Technical Coordinators KV9U of Onalaska and KD9RQ of Madison. They may help answer your technical questions or solve RFI problems. Check with your club leaders if you are interested in becoming an ATC.

ACC. KA9FOZ reports there are 54 ARRL Affiliated Clubs in Wisconsin, with the Wisconsin Experimental Radio Association in Milwaukee as the latest club to become affiliated.

Radio bulletin board on 7.085 MHz, 24 hours per day, operated by N9BKJ.

Taylor County Area ARC and ARES groups had Packet Radio demonstration by N9BIR and have fine newsletter edited by WD9IKF.

WB9MFB reports Manitowoc repeater now has link receiver at Green Bay.

WNN Manager, KA9QBP, passed Advanced.

BPL to KA9CPA and K9GDF.

Sorry to report Silent Key KA9SND.

Remember club participation and entry in the November Sweepstakes, mark your logs accordingly.

ARRL/VEC exam by CWRA November 2, contact N9JW.

Ozaukee RC and Sheboygan County ARC plan to have combined meeting at Saukville on November 11th.

The Milwaukee Repeater Club will hold the last Amateur Radio swapfest of the year, the 6.91 Friendly Fest, on November 24th, 8 a.m. to 4 p.m., indoors at Serb Hall, Milwaukee, with free parking. See you at the ARRL table.

D9RN REPORT FOR AUGUST X 353 MESSAGES IN 1014 MINUTES X YOUR STATE 85 PERCENT X STATIONS N9BGE W9CBE N9EAX WA9WYS W9DDV W9IEM KC9CJ N9AUG WB9PKL X 73 - WA4JTE NM

9RN CYCLE 4 REPORT AUGUST X QNI 434 WTC 499 QTR 819 IN 62 SESSIONS X WISCONSIN 97 PERCENT REPRESENTED STATIONS N9AUG W9CBE KC9CJ WB9ICH KA9QBP W9OT K9UTQ W9YCV X 73 - W9JUI NM

CAND REPORT AUGUST X 824 MESSAGES 31 SESSIONS D9RN REPRESENTED 100 PERCENT X WISCONSIN STATIONS N9BGE W9IEM WD9FRI W9CBE N9EAX KC9CJ 73 - W5KLV NM

SET OCTOBER 19-20

Gary Maples W9DAK
 Section Emergency Coordinator
 1006 Marquardt Road
 Wausau WI 54401

Thanks to the cooperation of Net Manager WB9ESN and others, the Badger Emergency Net will be holding special extra sessions of the BEN on the Simulated Emergency Test weekend of October 19 and 20.

Extra sessions are scheduled for 10:00 a.m. and 2:00 p.m. on Saturday, October 19, and one session at 10:00 a.m. on Sunday, October 20. Note that these are additional sessions of the Badger Emergency Net. All Wisconsin Nets Association Nets (including the BEN) will also meet at their normal times.

Of course, SET traffic can be moved on any of the WNA nets at any time. The special, extra BEN sessions are held to even out the flow of traffic, and to

perhaps provide a real time outlet for traffic generated during local SET activities.

If you have digested the above information, perhaps you may be asking what this all means to you.

The Simulated Emergency Test is sponsored by the ARRL on an annual basis to exercise the National Traffic System (NTS) and the Amateur Radio Emergency Service (ARES). An actual emergency is not the best time to begin training for emergency communications operations.

We learn to respond by practice prior to the real thing. The SET was developed to provide this practice.

Local (meaning county or city level) ARES groups should be planning an exercise to test their ability to provide communications support during an emergency.

The ARRL suggests the exercise involve as many local agencies (Red Cross, Emergency Government, etc.) as possible. The goal, of course, is to develop a solid working relationship between the ARES group and the local agencies. The practice helps to identify weak areas and uncover previously unrecognized problems.

All Amateurs are urged to contact their local ARES Emergency Coordinator to find out how they can be involved in the local exercise. Everyone is encouraged to participate. Affiliation with the ARRL, ARES, or local radio group is not a requirement.

In addition to the local ARES activities, an increased amount of traffic will be generated to help exercise the traffic nets. Your participation in WNA traffic nets will be appreciated on the SET weekend to facilitate the prompt movement of traffic.

In particular, note the extra BEN sessions listed above.

Too often, people tend to forget the importance of the NTS nets. Much time and concentration is put on providing communications on the local level during an emergency. But, we must not forget that communication in and out of the disaster area is as important as communications within a disaster area.

Do you know how find and use the nets of the Wisconsin Nets Association? In an emergency, you might be called upon to do so. The SET weekend is a good time to learn more about it.

One trained emergency communicator is worth five willing but untrained ones. Please don't get your emergency communications training "on the job."

Your participation in the 1985 SET is appreciated.

WISCONSIN BULLETIN MANAGER

Carl H. Plotz, Jr. WB9JSW
1406 Walnut Street
Oshkosh WI 54901

Greetings.. This being my first time using this forum, I'll spend a few lines to introduce myself.

I became a Ham in 1973, first as a Novice, and seven months later, upgrading to General class.

I had first become interested in Amateur Radio as a teenager while reading a "Hardy Boys" novel. Finally, about 17 years later, I fulfilled that desire.

Most of my operating is devoted to the SSB traffic nets. I have just recently become involved in RTTY and Packet.

I have been a newspaper photographer since 1962, except for two years, when I did some photo work for Uncle Sam.

The aim of the Official Bulletin Station is to provide the Ham community with the latest news concerning developments in Amateur Radio. These bulletins are transmitted daily by WIAW.

It is the hope of the Wisconsin Section program to bring these bulletins to the Hams with only VHF equipment, or those whose schedule does not permit them to copy the information on the HF bands.

Many of these bulletins are pertinent to the VHF-UHF operator. A good example of this were two recent bulletins announcing the availability of the 902 to 928 MHz band and the restrictions on 420 to 430 MHz.

To meet the criteria of OBS is simple.

(1) An OBS must be a full ARRL member, and have a Technician class or higher license.

(2) Send the Bulletin Manager a monthly report of your activities.

(3) Retransmission of the bulletins weekly or as often as possible.

At the present time, we have six active bulletin stations. The most recent addition is Tom Young, KD9FC, from Hayward. Tom has been recording the phone bulletins and retransmitting them on the local 2 meter repeaters.

Anyone interested in becoming an Official Bulletin Station, or desiring more information, please contact me.

FROM THE STM

Gene Santoski K9UTQ
Section Traffic Manager WI
1220 18th Avenue South
Wisconsin Rapids WI 54494

Greetings to all, and I hope that you are having (had) a great summer. Time sure flies when you're having fun.

Have you ever thought about becoming an Official Relay Station (ORS)? Currently, there are 12 in Wisconsin, and there is room for more. Let me briefly tell you what is involved with this appointment.

First of all, this is a traffic handling appointment. This is one of the first ARRL station appointments created by the League many years ago.

As phone operation became more prevalent, the Official Phone Station appointment was created to augment ORS for phone operators active in traffic handling. In the mid-70s, the League combined both appointments into one - Official Traffic Station - which lasted for about 3 or 4 years, after which the Official Relat Station appointment was once again reinstated. The Official Phone Station appointment is now history.

At any rate, ORS is now open to all classes of license, from Novice to Extra, and now applies equally to all modes and all parts of the spectrum. It is for traffic handlers, regardless of how they do it or in what part of the spectrum.

The appointed ORS may confine activities to one mode or one part of the spectrum, if so desired. There is no versatility requirements, although versatility does indeed make it possible for anyone to perform a more complete public service.

There is, however, the expectation that the ORS will set the example in traffic handling, however it is done. Here are the basic requirements:

1. Full ARRL membership.
2. Code and/or voice transmission.
3. Transmission quality, by whatever mode, must be of the highest quality, both technically and operationally.
4. All ORS are expected to follow standard ARRL operating practices (message form, ending signals, abbreviations or prowords, courtesy, etc.)
5. Regular participation in traffic activities, either free lance or ARRL sponsored. The latter is encouraged but not required.
6. Handle all record communications speedily and reliably and set the example in efficient operating procedures. All traffic is relayed or delivered promptly after receipt.
7. Report monthly to the STM (that's me), including a breakdown of traffic handled during the past calendar month.

Those are the requirements for ORS. Not bad huh? If you are relatively active in traffic work and meet the above requirements, please give some consideration to this appointment.

In looking at the roster of net members in Wisconsin, it is interesting to note some statistics which I would like to pass on to you here.

There are, as of June 30th, 208 registered (net member) traffic handlers in Wisconsin, representing 119 locations (some out of state). Considering that there are just over 7,000 Amateurs in Wisconsin, this represents only 3% of the total population, which I think is rather disappointing. I dream of 10%, which would be about 700 traffic handlers, but that's like reaching for the moon!

I urge you to talk to your fellow Hams at club meetings, exam sessions, hamfests, etc., and explain to them what it's all about, and that there is no reason

to have any fears about getting involved in traffic handling.

I feel that the most widespread reason that many Amateurs are not involved in traffic handling is fear. Fear of making a mistake. The best way to alleviate that fear is to make them feel welcome on the nets, and to guide them through the various steps in the handling of a message.

There are many geographical gaps in our net participation here in Wisconsin, and, in many cases, there are Amateurs living in those gaps who are either not interested in or have a fear of getting involved in nets. We have to reach out to those people and encourage them to get active in traffic handling.

Net stats as of the end of July follow:

NET	SESS	QNI	QTC	QSP	QTR
BEN	211	5269	1886	1647	7139
BWN	182	8434	9506	9472	18758
NWTN	212	3159	525	521	7720
WCWTN	210	3652	399	347	3257
WSSN	212	1015	314	250	3939
WIN/E	210	1754	1345	1044	3206
WIN/L	212	1046	591	496	3048
WNN	198	946	203	166	5009
WSBN	210	6084	2046	1749	6194

TOTALS 1857 31359 16815 15692 58270

The above figures average out to 17 checkins per session, 9 pieces traffic offered per session - 8 cleared, which is 93% cleared. Total net time equates to 971 hours, or about 40 days total.

The Traffic Training Assistant program, after several setbacks, is now a reality - about a year late!

Those of you who have expressed an interest in becoming TTAs should have received a letter, along with a copy of the TTA Training Manual. I hope that this approach to traffic training will prove to be the most effective in getting new people into our net system.

The following are those who are presently TTAs:

Richard Hugi, KC9CJ, Milwaukee
 Chuck Taylor, KZ9V, Phillips
 Steve Polishinski, WB9VSD, Verona
 Mac McCandless, WD9IID, Ringle
 Lee Andreas, N9BDL, Lake Tomahawk
 Jim Thompson, N9DHT, Eau Claire

I would like to see a TTA in the Green Bay, Appleton, Oshkosh area, as well as in the Duluth-Superior and La Crosse areas. This would pretty well cover the state for purposes of training.

If you are an experienced traffic handler, and would like to become a part of this training program, contact me as soon as possible, and I will get you set up.

That about does it for this one. Keep up the good work, and go out and promote traffic handling and try to get some new people on our nets.

73, Gene Santoski K9UTQ
 Wisconsin Section Traffic Manager

YELLOW THUNDER AMATEUR RADIO CLUB, INC.

The September 16, 1985 meeting of the Yellow Thunder Amateur Radio Club, Inc. was called to order by Vice-President, Duane Grotophorst, KA9HKL.

The following members and guests were present:

Duane Grotophorst, KA9HKL	Sauk City
Ken Ebnetter, K9EN	Portage
Jim Decker, WB9UQT	Baraboo
Harry Mayland, K9FFT	Baraboo
Harry Westlund, K9EHJ	Baraboo
Maurey Gurgel, KA9TBU	Reedsburg
Art Kleefish, W9WSS	Baraboo
Jim Romelfanger, K9ZZ	Baraboo

The minutes of the previous meeting were approved as printed in BSSS. The Treasurers report showed no change since the last meeting.

Communications and announcements: K9EN read items from The ARRL Letter and reported on the WNA picnic. WB9UQT announced a Walk-a-thon to be held October 5, 1985, in the Baraboo area. Amateur radio communications help will be needed. Contact Jim Decker, WB9UQT if you can help.

Old Business: The club equipment fund was discussed. A motion was made, seconded and passed (6-0) to purchase a Novice transceiver, (such as a Century 21) if one can be located at a reasonable price.

No new business.

The door prize was \$4.00. Art's calculator again made the selection. Pete Sweeney, WD9JIB was not present to claim his prize. Next month the prize will be \$5.00.

The meeting was adjourned.

Respectfully submitted
Ken Ebnetter, K9EN

YTARC BIRTHDAY:

Paul Amend, KA9OBP, October, 10 Portage

Sentence Sermon:

Nobody talks so constantly about God as those who insist there is no God.

--Heywood Brown

WA9--- is in a period of mourning at the present time. His wife made a dip out of his pet clam.

"THE PHONE RANG ALL NIGHT"

That's what Bob Mecum, KM9W, Monona, told me.

It was the result of a Madison TV station listing his telephone number on the air, following the first of two huge earthquakes in Mexico. The TV announcement gave Bob's phone number to their viewers as a way the public could get information into and out of Mexico.

I talked with Bob on 16/76 Madison the next morning, and, in the background, I heard other operators on HF... and I heard the phone ring.. again. Bob sounded a bit sleepy, needless to say.

Bob was joined on the air by other members of the Four Lakes Amateur Radio Club in what sounded like a major effort to serve a worried public in the Madison area, and I suspect that scene was repeated hundreds of times in other cities across the U.S.

Operating their individual stations were KM9W, WD9GFT, KD9HJ, W9ZM, NF9S, and Joel Kupferberg, N9CPW, who coordinated the effort for FLARC.

This information is early, and may be incomplete. We apologize to anyone who may be omitted from the list of calls.

The Mexican earthquakes resulted in a tremendous amount of publicity for our hobby, with ABC TV News anchorman Peter Jennings saying that the only really reliable communications to the stricken area were Amateur Radio operators.

If ever the public doubted our value and our capabilities - and maybe that all Hams do is "play" with their radios - this should dispel that notion.. right now.

The best part of what the FLARC members did is this: They apparently were successful in getting information back to the Madison area to the friends and loved ones who were concerned about the fate of people in Mexico. I don't suppose the response rate was 100% - it rarely is - but those who did get responses were grateful, to say the least.

To those FLARC members who performed this service - and to all the others in Wisconsin and everywhere this was done - we at Badger State say a very hearty "WELL DONE"! And, we also say thanks!

-k9zz

THE WISCONSIN PACKETEER

Newsletter notes: October 1985

Wisconsin Amateur Packet Radio Assn.

Milwaukee Area Report

West-Southwest Wisconsin
by John Corstvet, WA9SOU

On September 4th, 1985, John Corstvet, WA9SOU made a trip to the La Crosse area to enlighten that Amateur Radio community with packet radio. This presentation took place at the Onalaska Community Center in Onalaska. There were about 30 interested participants to this presentation which included showing the TAPR video tape, and an on-the-spot demo of packet equipment.

The response to John's demonstration was very positive. There was an immediate reaction by some to join this Amateur Radio mode, along with group conversation and suggestions for participation in a area wide digipeater.

As of this writing, plans were made to give another packet demonstration in the southwest area. This demo will be given in Madison by Dave Martin, N9IF, along with the assistance of John, WA9SOU. You may have seen Dave's beacon requesting stations to assist in the demonstration. (An excellent purpose for a beacon.)

Considerable discussion has been generated in this area for establishing an operating procedure or standard for sending and receiving messages. This involves 24 hour monitoring, conok setting, buffer storage, and possible symbols to be used. Any ideas or suggestions might be directed to John or the other stations this area to try to establish a workable pattern of operation. Check the latest directory for the calls and locations.

Just prior to the end of August, through the efforts of WA9SOU and WB9BPS, the digipeater on North Freedom Hill was substantially improved. The original effort was temporarily hampered with some technical problems, but these have since been corrected and improved. This digipeater is currently in operation and is known as WA9SOU-2. It is open for all to use.

This location is southwest of Baraboo and should prove to be a vital link to packet communications in and out of this area. This effort is still subject to improvements, such as a possible feedline replacement and upgrade to a better antenna.

Sunday Sept. 15th was a big day for digipeater news. On that very day, Ron, WB9WRW and Gregg, WD9DHI put up a very effective digipeater in the Holy Hill area. This machine really honks now and these guys have plans to improve its performance. The machine is located in a very high location. However, it is not far off the ground.

Gregg plans to install a tower on the site in about 2 to 3 weeks and consequently the antenna will rise about 80 feet. The unit is a GLB TNC, with a 90 watt output, from a Motorola Motrac radio. The antenna will ultimately be at about 1200 feet above sea level.

The unit is under test for now, and as soon as they are assured of its performance, WB9WRW-1 will no longer be used as a digipeater. The digipeater will be known as WB9WRW (as it is now) and WB9WRW-1 will be converted to Ron's operating unit along with plans to add a MSD. Watch for his beacon indicating the change.

Gregg and Ron are looking for a preamp to go with this station.... Do we have any donors????

HEATHKIT RUMOR CONFIRMED

Heathkit stores will be getting Master TNC proms for customers to burn their own software updates. The latest Heathkit TNCs have been shipped with software rev. 3.3. As I understand it, Heathkit TNC owners will be the only people to get new Heathkit TNC software! At this time, it appears that Heath Kit will not support software give-aways to TAPR TNC units or other clones! This information was obtained from the Heathkit store in Milwaukee, and confirmed by a Heathkit representative in Benton Harbor.

---Dave, WB9OWN

INTERFERENCE PROBLEM SOLVED

A couple of weeks ago, an interference problem came to a head. An RTTY/MSO came back to life on 145.00 MHz., causing interference to the new link to Madison, WA9KEC on 145.01.

After the aborted attempt by W9WI to make it into Detroit by digipeaters (!!!), I decided to find out who the operator was and to call him. After a

45 minute phone call. I convinced him to move his RTTY/MSO to a different frequency.

As 2 meters gets more crowded, things will work out if we all cooperate. My thanks to the Ham in Menominee Falls for being such a gentleman.

---Dave, WB9OWN

Northwoods Notes

As of September 15th, 1985, the N9CLE-1 digipeater has been relocated to Mosinee Hill, just south of the Wausau area. The equipment required some repair which was accomplished prior to the relocation from the former Tamahawk repeater site.

This move is expected to provide a more significant location toward linking into the north half of the state. So aim your packet path toward the Wausau area and see what develops.

Jim Link, N9BIR, of Marshfield, WI., was scheduled to give a packet demonstration to the Taylor County Amateur Radio Club in Medford on Thursday September 5th. As of this writing, the results of this event were unknown. However, the report indicated that Jim had planned to attempt contacts on both VHF and HF bands.

Bill Schroeder, W9ZBD, of Rhinelander, WI., also planned a packet demonstration for the Northwoods Amateur Radio Club on September 17th for the Rhinelander area.

There is considerable amount of talk lately, on all the bands, about this new Packet Radio mode. These demonstrations hopefully will result in new packeteers in the Northern part of the state.

Borderline Report by Verne, W9ZGS

Activities in northern Illinois also involve promoting area wide digipeaters. John, KA9CAR, and a few others are working toward installing a 24 hour, wide area digipeater in the vicinity of Woodstock, IL. This will be a "prime location", which is 30 mile from Rockford, 30 miles from Beloit, and 20 miles to Lake Geneva. This should provide an effective path to and from a large number of "un-tapped" communities in Wisconsin and Illinois.

This digipeater, KA9CAR-1, will be approximately 16 miles from the WB9EEA-

1 digipeater in Dundee, IL., which covers a large part of northeast Illinois. This machine will operate on 145.01 MHz.

In a recent meeting of packet operators in and around LAKE and McHENRY counties in northern Illinois, a temporary agreement was reached on several items of concern to Packet Radio.

Packet "problems" were identified and ranked in order of importance and solutions were then proposed for each item listed. Solutions were also ranked in the order of "most effective" to "least effective". The "solutions" list was analyzed to determine what could be implemented by the group with their limited resources.

A few of the temporary solutions agreed upon were:

1. Paths to other areas can best be provided by area digipeaters strategically located. The digipeaters themselves will eventually become a problem. Congestion can be handled by moving to 145.030, or .050, or 147.555.
2. If BBS and MSD system operators set the DWAIT & RETRY to 5, other stations would have more opportunities to "capture" packet time. MSDs should limit file lengths to 10 lines.
3. Beacons should only be used if the operator is available at the keyboard for a QSO or if a special service is offered such as a BBS, MSD or to identify a special event station. Beacon text should only contain name, QTH, and service offered, if any. Beacons should not be digipeated through other stations nor should they be transmitted more frequently than every 20 minutes.
4. BBS and MSD sysops should edit traffic in their machines for content consistent with the sysop's wishes.

These above items can be found and reviewed on the W9IUP, WB9YLR and W9ZGS MSDs.

CAPRA, Chicago Area Packet Radio Association, will be host of a regional packet meeting at RADIO EXPO, Sept. 28, 1985. Problems similar to those discussed at the LAKE/McHENRY counties meeting will be touched on. CAPRA is also having a couple benefit drawings that will interest packet operator. and they will have a booth at the event for info.

Apple II: Worm

Packet operators beware!!!! There is a bug in the Apple IIe for packet use. If you have an Apple IIe or intend to buy one, for packet use, you may find yourself with a significant problem. The problem is on the "mother board" in this model computer. If you were planning to only use this model computer with an Apple modem, you would not have problem. However, if you plan to use a terminal node controller or a different brand modem with this computer, you may have the problem.

It is a problem with the timing device on the mother board of the computer. When you go in to purchase the computer, take your tnc & rig along. Test the unit to make sure they are functioning properly together, so you can be assured that you have a unit with the newer "mother board".

If you already have one of these computers with the older board, call Apple and see what they will do for you. They are aware of this problem and have been known to help customers out.

VHF AMPLIFIER
by Doug Smith, W9WI

I recently bought a Heath HA-201 amplifier. The method of transmit-receive switching used in this amplifier might be of interest to packet radio operators.

Two back-to-back diodes (Heath uses plain old 1N4148 switching diodes) are connected at the input of the amplifier's matching network. When at least a watt of RF appears at the input connector, the diodes conduct, connecting the network to the input connector.

Similarly, two more 1N4148s are used at the amplifier output connector, connecting the output matching network to the connector when amplified RF is present. Two quarter-wave lines are used, one connected to the output connector and the other to the input connector. These lines are connected together at their other ends, and two more 1N4148s are connected back-to-back to ground at the junction. When RF is applied, these diodes also conduct, shorting the ends of the quarter-wave lines. Open circuits are reflected by the lines, causing them to be essentially ignored by the amplifier.

When the RF input disappears, none of 6 diodes conduct. Now, the amplifier is disconnected from the input and output connectors. The two quarter-wave line, their junction no longer shorted, behave as simply an extra half-wave of

coax in series with the antenna.

This circuit is amazingly simple, uses so few parts, and works so fast that I'm amazed I've never seen it before. There are no relays to make noise or waste time, no expensive high-speed diodes, and no RF detector circuits to misbehave (or provide delays).

The main drawback is that the amplifier will still switch into the circuit even if the amplifier power is shut off, making it more difficult to switch the amplifier out of the circuit. This shouldn't be too serious of a problem.

This circuit, with heftier diodes, and RG8/U or RG213/u coax, might also be useful on HF for AMTOR service or full break-in CW use. Just don't try it on 160 unless you've got a big shack!

(see cover sheet for diagram)

Last Freebie

You may recall that the arrangements for future W.A.P.R. newsletter were established at the Milwaukee meeting, and were later explained in mailing of the newsletter. The agreement was to take to offer of Ken Ebner, K9EN, Chairman for "Badger State Smoke Signals", to put our news in the Amateur Radio publication.

The terms were to provide all packet operators on the current mailing list with 3 free issues on a trial basis. The idea was to give everyone enough exposure to the paper to decide if they wanted to receive it full time. Membership in W.A.P.R. will automatically include receiving "Smoke Signals", which is \$7.00 value alone. Therefore, the next mailing of this paper will be the last free issue.

We would like to encourage everyone to join the Wisconsin Amateur Packet Radio Association and continue to receive the publication. We are assured of as much as two full pages in this paper. Membership to W.A.P.R. is \$7.00/yr., or if you already subscribe to "Smoke Signals", the dues are \$2.50/yr. Send dues to Gary Gilbertson, WB9SDA, Rte. 1, Box 53, Brownsville, WI 53006

ACHTUNG!! If your 3-D glasses are missing, please let us know and we will send you a pair. (p.s. The red lens should be on the left eye)

That is it for another BSSS. Sorry, we had to use compressed type on some parts, in order to get all the fine articles submitted in this issue.

73 de BSSS staff

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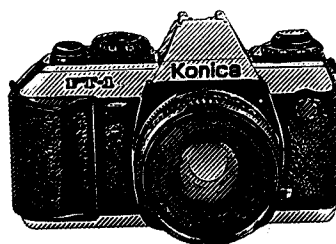
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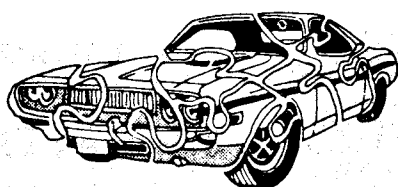
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Dear Fellow Radio Amateur:

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Badger State Smoke Signals will carry current Amateur Radio news, news about YELLOW THUNDER ARC, RIVERLAND RADIO CLUB, WNA, WAPR, ARRL and other clubs and groups in Wisconsin as well. You will be kept apprised of what is happening in our hobby - locally, regionally, nationally and around the world. Among the many features will be Sentence Sermons, member birthdays, swapfest calendar, ARRL section news, humor and excellent feature articles by well-known Amateurs in Wisconsin and elsewhere. Reports will be included from ARRL Bulletins, ARRL Newsletters, and Westlink Reports, along with items of interest from exchange newsletters and the ARNS.

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In addition to the above rates, a special reduced rate is available to clubs having 20 or more subscriptions per year at a rate of \$4.50 each.

Clubs wishing to participate in Badger State Smoke Signals with a column devoted to their club can receive a lower rate. Mailings must be made to the entire club membership and your club would receive a 15 percent additional complimentary mailings. (There are presently over 100 complimentary and exchange addresses on the mailing list in addition to the present subscribers.)

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Badger State Smoke Signals would be happy to serve your members as the official journal for your club. For information and requirements, please contact Ken Ebner, K9EN, 822 Wauona Trail., Portage, Wisconsin 53901 -- (608) 742-3560

If you are active on the traffic nets and wish to receive Smoke Signals as a WISCONSIN NETS ASSOCIATION BOOSTER please contact WNA Treasurer, Mike Hamman, KA9BHL, Rte. 5, Box 668, Tomahawk, WI 54487 for information on how to become a WNA BOOSTER.

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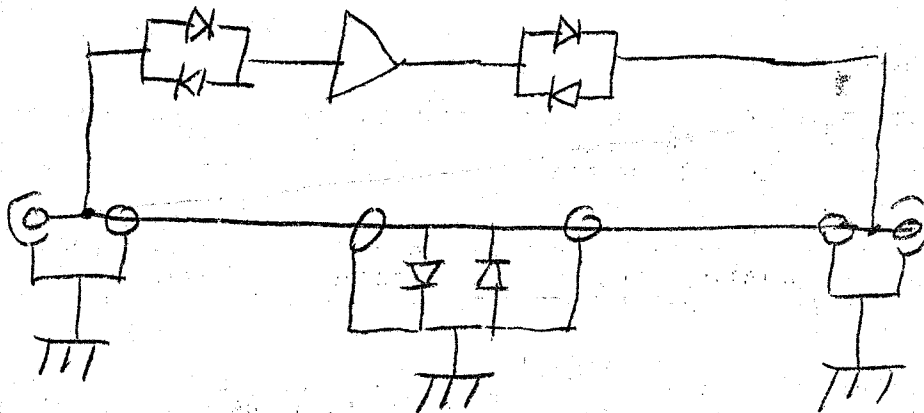
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